

REMARKS/ARGUMENTS

Claims 1-32 were previously pending in the application. Claims 1-32 are canceled; new claims 33-64 are added herein. Assuming the entry of this amendment, claims 33-64 are now pending in the application. The Applicant hereby requests further examination and reconsideration of the application in view of the foregoing amendments and these remarks.

Amendment to the Specification

The specification has been amended at page 13 to better reflect the originally submitted disclosure. This amendment is supported by originally submitted claims 6 and 21.

Prior-Art Rejections

In pages 2-8, the Examiner rejected claims 1-13, 15-28, and 30 under 35 U.S.C. § 103(a) as being unpatentable over Haartsen (U.S. Pat. App. Pub. No. 2002/0131486) in view of Partyka (U.S. Pat. No. 6,925,105). In pages 8-9, the Examiner rejected claims 14 and 29 under 35 U.S.C. § 103(a) as being unpatentable over Haartsen in view of Partyka, in further view of Chung et al. (U.S. Pat. No. 6,731,618). In pages 9-10, the Examiner rejected claims 31 and 32 under 35 U.S.C. § 103(a) as being unpatentable over Haartsen in view of Partyka, in further view of DeMartin et al. (U.S. Pat. No. 6,421,527). Since claims 1-32 are canceled, the Applicant submits that the rejection of those claims are moot.

For the reasons set forth below, the Applicant respectfully submits that new claims 33-64 are allowable over the cited prior art.

Claims 33 and 49

New claims 33 and 49 are supported by previously pending claims 16 and 32, and the specification at page 9, lines 3-9, and page 10, lines 5-9. New claim 33 is directed to a network device for a communication network, the network device comprising a database table and a receiver. The Applicant respectfully submits that the cited prior art does not disclose all the features of new claim 33.

In rejecting previously pending claim 1, which recited method steps corresponding to previously pending claim 16, the Examiner asserted that (1) Haartsen discloses packets preceded by a preamble that contains a flag that provides an indication to the receiver to aid the receiver in selecting a corresponding reference training sequence and (2) Partyka discloses a plurality of transmitters where “each transmitter has a transmitter identification number assigned to it that is included in each transmitted message in order to make it possible for the receiver to identify the

source of each received message and to differentiate one transmitter from another.” The Examiner further asserts that it would have been obvious to combine Haartsen and Partyka “to incorporate the concept of having an identifier . . . for the transmitter be included in packet for pre-training lookup of a reference training sequence . . . in order to correctly and successfully equalize a receiver to the correct transmitter.”

The Applicant respectfully submits that the suggested combination is improper. First, Partyka teaches away from the suggested combination. Partyka teaches a “receiver [that] identifies each source of transmission based on its unique variations of the transmission and frequency, thus eliminating the necessity to include any information about the transmitter ID code in the transmitted messages” (Partyka Abstract; emphasis added). Thus, Partyka teaches a system where an identifier for a transmitter is not included in data packets from the transmitter. Thus, the Applicant respectfully submits that the reason proffered by the Examiner for combining Haartsen and Partyka is improper.

Assuming *arguendo* that the Examiner’s characterization of Haartsen and Partyka is correct, which the Applicant does not admit, combining the references would not disclose all the claimed features of new claim 33. Neither reference teaches a database table, and neither even contains either term “database” or “table.” Thus, it cannot be said that the cited references teach this requisite feature of new claim 33.

Assuming *arguendo* that Haartsen implicitly discloses a table, as asserted by the Examiner, but which the Applicant does not admit, Haartsen nevertheless does not teach a database table that allows updating of its parameters, let alone “updating of a first set of one or more parameters . . . based on data packets received from a first transmitter” as required by new claim 33. Thus, it cannot be said that the cited references teach this requisite feature of new claim 33.

In addition, Haartsen does not teach a receiver adapted to (1) “update the first set of one or more parameters based on the processing” of “at least a portion of the first data packet” or (2) “provide to the database table, for storage, the updated first set of one or more parameters.” Thus, it cannot be said that the cited prior art teaches these requisite feature of new claim 33.

Therefore, the Applicant submits that new claim 33 is allowable over the cited references. For similar reasons, it is submitted that new claim 49 is also allowable over the cited references.

Since claims 34-48 depend variously from claim 33 and claims 50-64 depend variously from claim 49, it is further submitted that those claims are also allowable over the cited references.

Claims 34 and 50

New claims 34 and 50 are supported by the specification at page 8, lines 7-15. The Applicant submits that the cited references do not teach the network device for a communication network of claim 33 wherein the communication network is a HomePNA network, as recited in claim 34. Thus, it cannot be said that the cited references disclose all the features of claim 34.

Therefore, the Applicant submits that this provides further grounds for the allowability of new claim 34 over the cited references. For similar reasons, it is submitted that this provides further grounds for the allowability of new claim 50 over the cited references.

Claims 35 and 51

New claims 35 and 51 are supported by previously pending claim 19, the specification at page 10, line 22 – page 11, line 2, and Fig. 3. The Applicant submits that the cited references do not teach the network device of claim 33 where the first auxiliary coding is inserted within a training preamble of the first data packet, as recited in claim 35. Thus, it cannot be said that the cited references disclose all the features of claim 35.

Therefore, the Applicant submits that this provides further grounds for the allowability of new claim 35 over the cited references. For similar reasons, it is submitted that this provides further grounds for the allowability of new claim 51 over the cited references.

Claims 36 and 52

New claims 36 and 52 are supported by the specification at page 13, line 27 – page 14, line 2, and Figs. 7A – 7C. The Applicant submits that the cited references do not teach the network device of claim 33 where (1) the first auxiliary coding is encoded using frequency shift keying (FSK) modulation by frequency division, (2) the first auxiliary coding is encoded at a frequency different from a frequency for the first data packet, and (3) receipt of the first auxiliary coding overlaps in time with receipt of the training preamble of the first data packet, as recited by claim 36. Thus, it cannot be said that the cited references disclose all the features of claim 36.

Therefore, the Applicant submits that this provides further grounds for the allowability of new claim 36 over the cited references. For similar reasons, it is submitted that this provides further grounds for the allowability of new claim 52 over the cited references.

Claims 37 and 53

New claims 37 and 53 are supported by previously pending claim 18. The Applicant submits that the cited references do not teach the network device of claim 33 where the first auxiliary coding is received before the first data packet is received, as recited by claim 37. Thus, it cannot be said that the cited references disclose all the features of claim 37.

Therefore, the Applicant submits that this provides further grounds for the allowability of new claim 37 over the cited references. For similar reasons, it is submitted that this provides further grounds for the allowability of new claim 53 over the cited references.

Claims 38 and 54

New claims 38 and 54 are supported by previously pending claim 16. The Applicant submits that the cited references do not teach the network device of claim 33 further comprising a transmitter adapted to generate a second auxiliary coding for transmittal with a second data packet, as recited by claim 38. Thus, it cannot be said that the cited references disclose all the features of claim 38.

Therefore, the Applicant submits that this provides further grounds for the allowability of new claim 38 over the cited references. For similar reasons, it is submitted that this provides further grounds for the allowability of claim 54 over the cited references. Since claims 39 and 40 depend from claim 38 and claims 55 and 56 depend from claim 54, it is further submitted that this also provides further grounds for the allowability of those claims over the cited references.

Claims 39 and 55

New claims 39 and 55 are supported by previously pending claim 20. The Applicant submits that the cited references do not teach the network device of claim 38 where the transmitter is adapted to transmit both the second auxiliary coding and the second data packet using the first RF front end, as recited by claim 39. Thus, it cannot be said that the cited references disclose all the features of claim 38.

Therefore, the Applicant submits that this provides further grounds for the allowability of new claim 38 over the cited references. For similar reasons, it is submitted that this provides further grounds for the allowability of new claim 55 over the cited references.

Claims 40 and 56

New claims 40 and 56 are supported by previously pending claim 21. The Applicant submits that the cited references do not teach the network device of claim 38 where the

transmitter (1) comprises a first and a second RF front end and (2) is adapted to transmit (a) the second auxiliary coding using the first RF front end and (b) the second data packet using the second RF front end, as recited by claim 40. In rejecting previously pending claims 6 and 21, the Examiner specifically cited Fig. 3 of Haartsen as disclosing a transmitter and receiver system from which it “should thus be obvious to transmit the auxiliary coding with the same RF front end or a different RF front end from said data packet, as it is well known in the art that transmitters/receivers incorporate RF front ends for efficient data transmissions.” The Applicant submits that the Examiner’s assertion is not supported by cited references which do not disclose transmitters having multiple RF front-ends, and certainly not transmitting a data packet and a corresponding auxiliary coding using different RF front-ends. Thus, it cannot be said that the cited references disclose all the features of claim 40.

Therefore, the Applicant submits that this provides further grounds for the allowability of new claim 40 over the cited references. For similar reasons, it is submitted that this provides further grounds for the allowability of new claim 56 over the cited references.

Claims 41 and 57

New claims 41 and 57 are supported by previously pending claim 27. The Applicant submits that the cited references do not teach the network device of claim 33 where the first auxiliary coding comprises five or fewer symbols, as recited by claim 41. Thus, it cannot be said that the cited references teach all the features of claim 41.

Therefore, the Applicant submits that this provides further grounds for the allowability of new claim 41 over the cited references. For similar reasons, it is submitted that this provides further grounds for the allowability of new claim 57 over the cited references.

Claims 42 and 58

New claims 42 and 58 are supported by previously pending claim 28. The Applicant submits that the cited references do not teach the network device of claim 33 where the first auxiliary coding comprises five or fewer bits, as recited by claim 42. Thus, it cannot be said that the cited references teach all the features of claim 42.

Therefore, the Applicant submits that this provides further grounds for the allowability of new claim 42 over the cited references. For similar reasons, it is submitted that this provides further grounds for the allowability of new claim 58 over the cited references.

Claims 43 and 59

New claims 43 and 59 are supported by previously pending claim 16. The Applicant submits that the cited references do not teach the network device of claim 33 where the first identifier is a station identifier for the first transmitter, as recited by claim 43. Thus, it cannot be said that the cited references teach all the features of claim 43.

Therefore, the Applicant submits that this provides further grounds for the allowability of new claim 43 over the cited references. For similar reasons, it is submitted that this provides further grounds for the allowability of new claim 59 over the cited references.

Claims 44 and 60

New claims 44 and 60 are supported by the specification at page 11, lines 7-17, and page 12, line 28 – page 13, line 2. The Applicant submits that the cited references do not teach the network device of claim 33 where the first data packet header includes a source address for the first transmitter and the first identifier is not the same as the source address for the first transmitter, as recited by claim 44. Thus, it cannot be said that the cited references teach all the features of claim 44.

Therefore, the Applicant submits that this provides further grounds for the allowability of new claim 44 over the cited references. For similar reasons, it is submitted that this provides further grounds for the allowability of new claim 60 over the cited references.

Claims 45 and 61

New claims 45 and 61 are supported by the specification at page 10, lines 19-21. The Applicant submits that the cited references do not teach the network device of claim 33 where the first set of one or more parameters comprises at least one of a receiving-equalizer start value, a timing-recovery start value, an automatic-gain-controller start value, and an echo-canceller start value, as recited by claim 45. Thus, it cannot be said that the cited references teach all the features of claim 45.

Therefore, the Applicant submits that this provides further grounds for the allowability of new claim 45 over the cited references. For similar reasons, it is submitted that this provides further grounds for the allowability of new claim 61 over the cited references.

Claims 46 and 62

New claims 46 and 62 are supported by previously pending claim 32. The Applicant submits that the cited references do not teach the network device of claim 33 where the updating

is based on moving averages, from past data packets received from the first transmitter, of one or more of a receiving-equalizer value, a timing-recovery value, an automatic-gain-control value, and an echo-canceller value, as recited by claim 46. In rejecting previously pending claim 32, the Examiner cited DeMartin as specifically teaching moving averages. However, DeMartin teaches moving averages of soft values, which are numbers representative of probabilities of error. DeMartin does not teach moving averages of one or more of a receiving-equalizer value, a timing-recovery value, an automatic-gain-control value, and an echo-canceller value. Thus, it cannot be said that the cited references teach all the features of claim 46.

Therefore, the Applicant submits that this provides further grounds for the allowability of new claim 46 over the cited references. For similar reasons, it is submitted that this provides further grounds for the allowability of new claim 62 over the cited references.

Claims 47 and 63

New claims 47 and 63 are supported by the specification at page 12, lines 16-18, and Fig. 4. The Applicant submits that the cited references do not teach the network device of claim 33 where (1) the first auxiliary coding is received as a first set of pulses received substantially immediately before the first data packet and (2) the first identifier is encoded in the first set of pulses by variable timing intervals between adjacent pulses in the first set of pulses, as recited by claim 47. Thus, it cannot be said that the cited references teach all the features of claim 47.

Therefore, the Applicant submits that this provides further grounds for the allowability of new claim 47 over the cited references. For similar reasons, it is submitted that this provides further grounds for the allowability of new claim 63 over the cited references.

Claims 48 and 64

New claims 48 and 64 are supported by the specification at page 10, lines 5-9 and Fig. 2. The Applicant submits that the cited references do not teach the network device of claim 33 where the database table is further adapted to store the first identifier corresponding to each set of one or more parameters, as recited by claim 48. As noted above in reference to claim 33, Haartsen and Partyka do not even mention the terms “database” or “table,” let alone disclose what they might store. Thus, it cannot be said that the cited references teach all the features of claim 48.

Therefore, the Applicant submits that this provides further grounds for the allowability of new claim 48 over the cited references. For similar reasons, it is submitted that this provides further grounds for the allowability of new claim 64 over the cited references.

In view of the above amendments and remarks, the Applicant believes that the now-pending claims are in condition for allowance. Therefore, the Applicant believes that the entire application is now in condition for allowance, and early and favorable action is respectfully solicited.

Fees

During the pendency of this application, the Commissioner for Patents is hereby authorized to charge payment of any filing fees for presentation of extra claims under 37 CFR 1.16 and any patent application processing fees under 37 CFR 1.17 or credit any overpayment to **Mendelsohn & Associates, P.C. Deposit Account No. 50-0782.**

The Commissioner for Patents is hereby authorized to treat any concurrent or future reply, requiring a petition for extension of time under 37 CFR § 1.136 for its timely submission, as incorporating a petition for extension of time for the appropriate length of time if not submitted with the reply.

Respectfully submitted,

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